Claims:

1. An electric insulating material comprising a glass fiber layer and a mica layer disposed thereon, wherein the glass fiber layer comprises twist-free glass yarn.

2. An electric insulating material according to claim 1, wherein the glass fiber layer is a woven glass fabric.

3. An electric insulating material according to claim 1, additionally comprising at least one polymeric resin.

4. An electric insulating material according to claim 2, wherein the polymeric resin comprises a thermosetting resin.

5. An electric insulating material according to claim 2, wherein the polymeric resin comprises at least one epoxy resin.

6. An electric insulating material according to claim 2, wherein the polymeric resin comprises at least one silicone resin.

7. An electric insulating material according to claim 3, wherein resin content ranges from about 3% to about 25% by weight.

8. An electric insulating material according to claim 3, wherein resin content ranges from about 5% to about 18% by weight.

9. An electric insulating material according to claim 3, 7, or 8, additionally comprising a cure accelerator.

10. An electric insulating material according to claim 9, wherein the cure accelerator comprises a metal or an amine.

11. An electric insulating material according to claim 3, wherein resin content ranges from about by weight about 25% to about 50% by weight.

12. An electric insulating material according to claim 3, wherein resin content ranges from about 27% to about 45% by weight.

13. An electric insulating material according to any of the above claims, in the form of a tape.

14. A process for manufacturing an insulated electrical conductor, said method comprising wrapping the electrical conductor with an electric insulating material according to any of the above claims.

15. A process according to claim 14, additionally comprising heating the wrapped conductor to cure the resin.

16. A process according to claim 14, wherein the electrical conductor is a wire suitable for use in high temperature environments.

17. A process according to claim 14, wherein the electrical conductor is a coil for use in a high voltage electrical motor.

18. A process according to claim 14, additionally comprising impregnating the material with a thermosetting resin before heating the wrapped conductor.

19. A high temperature insulated wire manufactured using a process according to claim 16, wherein said wire is rated for operation at temperatures up to 450°C.

20. A high temperature insulated wire manufactured using a process according to claim 16, wherein said wire is rated for operation at temperatures up to 1100°C.

21. A high temperature insulated coil manufactured using a process according to claim 17.

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